This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1.      (Currently Amended) A method for improving data processing in connection with a database having restrictions therein, said method comprising:

defining a dimension comprising a plurality of attributes;

assigning each attribute to a respective column of said database having restrictions therein ~~on each attribute~~;

defining relationships between said attributes <u>of the defined dimension,</u> ~~wherein~~ said <u>defined</u> relationships [[are]] not <u>being</u> subject to said ~~attribute~~ restrictions ~~placed on~~ <u>of</u> said database<u>, said defined relationships establishing a first hierarchy of the attributes with respect to the defined dimension</u>;

defining new relationships between said attributes <u>of the defined dimension, said new defined relationships establishing a second hierarchy of the attributes with respect to the defined dimension</u> ~~wherein~~:

said new relationships [[are]] not <u>being</u> subject to ~~attribute~~ <u>said</u> restrictions ~~placed on~~ <u>of</u> the database; and

said new relationships <u>of the second hierarchy</u> ~~modify~~ <u>modifying</u> at least one relationship <u>of the first hierarchy</u> between said attributes; and

accessing said database via <u>at least one of the first hierarchy and the second hierarchy of</u> said dimension.


2.      (Canceled)

3.      (Previously Presented) A method in accordance with claim 1, further comprising:

defining at least one hierarchy comprising a sequence of said attributes, at least one of said attributes included in said defining relationships step.

4.      (Original) A method in accordance with claim 3, wherein each hierarchy defines a drill down path for accessing said database.

5.      (Original) A method in accordance with claim 3, wherein a hierarchy contains one attribute.

6.      (Original) A method in accordance with claim 3, wherein said act of defining said at least one hierarchy is independent of said database.

7.      (Canceled)

8.      (Original) A method in accordance with claim 1, wherein said database is a relational database.

9.      (Original) A method in accordance with claim 1, wherein said dimension is utilized with an on line analysis processing (OLAP) system.

10.     (Canceled)

11.     (Currently Amended) A computer-readable storage medium having computer-executable instructions for improving data processing in connection with a database having restrictions therein, by performing acts comprising:

defining a dimension comprising a plurality of attributes;

assigning each attribute to a respective column of said database having restrictions ~~on each attribute~~ therein;

defining relationships between said attributes <u>of the defined dimension,</u> ~~wherein~~ said <u>defined</u> relationships [[are]] not <u>being</u> subject to said ~~attribute~~ restrictions ~~placed on~~ <u>of</u> said database<u>, said defined relationships establishing a first hierarchy of the attributes with respect to the defined dimension</u>;

defining new relationships between said attributes <u>of the defined dimension, said new defined relationships establishing a second hierarchy of the attributes with respect to the defined dimension</u> ~~wherein~~:

       said new relationships [[are]] not <u>being</u> subject to ~~attribute~~ <u>said</u> restrictions ~~placed on~~ <u>of</u> the database; and

       said new relationships <u>of the second hierarchy</u> ~~modify~~ <u>modifying</u> at least one relationship <u>of the first hierarchy</u> between said attributes; and

accessing said database via <u>at least one of the first and second hierarchies of</u> said dimension.

12.     (Canceled)

13.     (Currently Amended) A computer-readable <u>storage</u> medium in accordance with claim 11, further having computer-executable instructions for defining at least one hierarchy comprising a sequence of attributes, at least one of said attributes included in said defining relationships step.

14.     (Currently Amended) A computer-readable <u>storage</u> medium in accordance with claim 13, wherein each hierarchy defines a drill down path for accessing said database.

15.     (Currently Amended) A computer-readable <u>storage</u> medium in accordance with claim 13, wherein a hierarchy contains one attribute.

16.     (Currently Amended) A computer-readable <u>storage</u> medium in accordance with claim 13, wherein said act of defining said at least one hierarchy is independent of said database.

17.     (Canceled)

18.     (Currently Amended) A computer-readable <u>storage</u> medium in accordance with claim 11, wherein said database is a relational database.

19.     (Currently Amended) A computer-readable <u>storage</u> medium in accordance with claim 11, wherein said dimension is utilized with an on line analysis processing (OLAP) system.

20.     (Currently Amended) A system for accessing a database having restrictions therein, said system comprising:

a processor coupled to a storage device, said storage device comprising said database;

a first definition component for defining a dimension comprising a plurality of attributes;

an assignment component for assigning each attribute to a respective column of said database;

defining relationships between said attributes of the defined dimension, ~~wherein~~ said defined relationships [[are]] not being subject to said ~~attribute~~ restrictions ~~placed on~~ of said database, said defined relationships establishing a first hierarchy of the attributes with respect to the defined dimension, said second component defining new relationships between said attributes of the defined dimension, said new defined relationships establishing a second hierarchy of the attributes with respect to the defined dimension ~~wherein~~:

said new relationships [[are]] not being subject to ~~attribute~~ said restrictions ~~placed on~~ of the database; and

said new relationships of the second hierarchy ~~modify~~ modifying at least one relationship of the first hierarchy between said attributes; and

an access component for allowing access to said database via at least one of the first and second hierarchies of said dimension.

21.     (Previously Presented) A system in accordance with claim 20, further comprising:

a third definition component for defining at least one hierarchy within each dimension, each hierarchy comprising a sequence of attributes, at least one of said attributes included in a relationship defined by said second definition component.

22.     (Original) A system in accordance with claim 21, wherein each hierarchy defines a drill down path for said access component.

23.     (Original) A system in accordance with claim 21, wherein a hierarchy contains one attribute.

24.     (Original) A system in accordance with claim 21, wherein said third definition component defines said at least one hierarchy independent of said database.

25.     (Canceled)

26.     (Original) A system in accordance with claim 20, wherein said system is utilized with an on line analysis processing (OLAP) system.

27.     (Currently Amended) A system for accessing a database having restrictions therein, said system comprising:

means for defining a dimension comprising a plurality of attributes;

means for assigning each attribute to a respective column of said database <u>having restrictions therein</u>;

means for defining relationships between said attributes <u>of the defined dimension,</u> wherein said <u>defined</u> relationships are not subject to said ~~attribute~~ restrictions ~~placed on~~ <u>of</u> said database<u>, said defined relationships establishing a first hierarchy of the attributes with respect to the defined dimension</u>;

means for defining new relationships between said attributes <u>of the defined dimension, said new defined relationships establishing a second hierarchy of the attributes with respect to the defined dimension</u>, wherein:

said <u>new</u> relationships are not subject to ~~attribute~~ <u>said</u> restrictions ~~placed on the original~~ <u>of the</u> database; and

said new relationships <u>of the second hierarchy</u> modify at least one relationship <u>of the first hierarchy</u> between said attributes; and;

means for accessing said database via <u>at least one of the first hierarchy and the second hierarchy of</u> said dimension~~; and~~

~~means for defining at least one hierarchy comprising a sequence of said attributes.~~

28.  (Canceled)

29.     (Currently Amended) A system in accordance with claim 27, wherein ~~said~~ at least one <u>of the first</u> hierarchy <u>and the second hierarchy</u> is defined independent of said database.

30.      (Original) A system in accordance with claim 27, wherein said system is an on line analysis processing (OLAP) system.

31.      (Original) A system in accordance with claim 27, wherein said means for defining a dimension, means for assigning, means for defining relationships, means for accessing and means for defining at least one hierarchy comprise at least one application programming interface (API).

32.      (Previously Presented) A computer-readable storage medium in accordance with claim 11 comprising a data structure comprising:

> the dimension comprising the plurality of attributes, wherein each attribute is bound to a column in a database; and

> a logical structure indicative of relationships between said plurality of attributes, wherein said relationships are not subject to said restrictions placed on said database.

33.      (Currently Amended) A ~~data structure~~ <u>computer-readable storage medium</u> in accordance with claim 32, said data structure further comprising at least one hierarchy comprising a sequence of attributes, at least one of said attributes included in said defining relationships step.

34.      (Currently Amended) A ~~data structure~~ <u>computer-readable storage medium</u> in accordance with claim 33, wherein each hierarchy provides a drill down path for accessing said database.

35.     (Currently Amended) A ~~data structure~~ <u>computer-readable storage medium</u> in accordance with claim 33, wherein a hierarchy contains a single attribute.

36.     (Currently Amended) A ~~data structure~~ <u>computer-readable storage medium</u> in accordance with claim 33, wherein each sequence is defined independent of said restrictions associated with said database.

37.     (Currently Amended) A ~~data structure~~ <u>computer-readable storage medium</u> in accordance with claim 32, wherein said logical structure is defined independent of said restrictions associated with said database.

38.     (Currently Amended) A ~~data structure~~ <u>computer-readable storage medium</u> in accordance with claim 32, wherein said database is a relational database.

39.     (Currently Amended) A ~~data structure~~ <u>computer-readable storage medium</u> in accordance with claim 32, wherein said database is capable of being utilized with an online analytical processing (OLAP) system.

40.     (Currently Amended) A method for retrieving data from a database having restrictions therein, said method comprising:

    receiving a data retrieval request including a dimension, wherein:

        said dimension includes a plurality of attributes;

each attribute is assigned to a respective column of said database;

at least one relationship between said attributes of the defined dimension is defined, ~~wherein~~:

said at least one defined relationship [[is]] not being subject to said ~~attribute~~ restrictions ~~placed on~~ of said database, said defined relationships establishing a first hierarchy of the attributes with respect to the defined dimension;

new relationships are defined between said attributes of the defined dimension, said new defined relationships establishing a second hierarchy of the attributes with respect to the defined dimension; [[and]]

said new relationships [[are]] not being subject to ~~attribute~~ said restrictions ~~placed on~~ of the ~~original~~ database; and

said new relationships of the second hierarchy ~~modify~~ modifying at least one relationship of the first hierarchy between said attributes; and

retrieving said data from said database via at least one of the first and second hierarchies of said dimension.

41.     (Original) A method in accordance with claim 40, further comprising:

providing said retrieved data in response to said data retrieval request.

42.     (Previously Presented) A method in accordance with claim 40, said data retrieval request further including at least hierarchy comprising a sequence of said attributes, where at least one of said attributes is included in the said at least one defined relationship.

43.     (Original) A method in accordance with claim 42, wherein each hierarchy provides a drill down path for accessing said database.

44.     (Original) A method in accordance with claim 42, wherein a hierarchy contains a single attribute.

45.     (Previously Presented) A method in accordance with claim 42, wherein each sequence is defined independent of said restrictions associated with said database.

46.     (Previously Presented) A method in accordance with claim 40, wherein said relationships between said attributes are defined independent of said restrictions associated with said database.

47.     (Original) A method in accordance with claim 40, wherein said database is a relational database.

48.     (Original) A method in accordance with claim 40, wherein said database is capable of being utilized with an online analytical processing (OLAP) system.